### UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

FEDERAL HOUSING FINANCE AGENCY, AS CONSERVATOR FOR THE FEDERAL NATIONAL MORTGAGE ASSOCIATION AND THE FEDERAL HOME LOAN MORTGAGE CORPORATION,

Plaintiff,

-against-

NOMURA HOLDING AMERICA INC., et al.,

Defendants.

No. 11-cv-6201 (DLC)

ECF Case

## DEFENDANTS' MEMORANDUM IN SUPPORT OF THEIR MOTION TO EXCLUDE CERTAIN TESTIMONY OF CHARLES D. COWAN

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January 8, 2015

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Action	FHFA v. Nomura Holding America Inc., et al., No. 11 Civ. 6201 (DLC)		
AVM	Automated Valuation Model		
Cowan Backup	Nomura Simulation Output Backup File to the October 7, 2014 Expert Report of Charles D. Cowan in this Action		
Cowan Deposition	Deposition of Charles D. Cowan, taken November 20, 2014 in this Action		
Cowan Sampling Report	October 10, 2012 Expert Report of Charles D. Cowan in this Action		
Cowan Extrapolation Report	October 7, 2014 Expert Report of Charles D. Cowan in this Action		
Defendants	Nomura Holding America Inc., Nomura Asset Acceptance Corporation, Nomura Home Equity Loan, Inc., Nomura Credit & Capital, Inc., Nomura Securities International, Inc., RBS Securities Inc., David Findlay, John McCarthy, John P. Graham, Nathan Gorin, and N. Dante LaRocca		
Ex.	Exhibit to January 8, 2015 Declaration of Elizabeth Cassady submitted in support of this motion		
Kilpatrick Report	May 15, 2014 Expert Report of John A. Kilpatrick Concerning Accuracy of Appraisals in this Action		
LTV	Loan-to-value		
Nomura	Nomura Holding America Inc., Nomura Asset Acceptance Corporation, Nomura Home Equity Loan, Inc., Nomura Credit & Capital, Inc., and Nomura Securities International, Inc.		
Plaintiff	Federal Housing Finance Agency		
Plaintiff's Proposal	Plaintiff FHFA's Proposed Sampling Protocol in <i>FHFA</i> v. <i>UBS Americas, Inc.</i> , No. 11 Civ. 5201 (DLC) (Feb. 29, 2012)		
Securitizations	NAA 2005-AR6, NHELI 2006-FM1, NHELI 2006-FM2, NHELI 2006-HE3, NHELI 2007-1, NHELI 2007-2, and NHELI 2007-3		

Defendants respectfully submit this memorandum in support of their motion to exclude, pursuant to Federal Rules of Evidence 403 and 702 and *Daubert* v. *Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), certain trial testimony of Charles D. Cowan related to his purported extrapolation of the results of John A. Kilpatrick's automated valuation model.

#### PRELIMINARY STATEMENT

Expert testimony is inadmissible if it is unreliable or misleading, and certain testimony offered by Charles D. Cowan is both. Cowan's sampling methodology was approved by this Court, over defendants' objections, on the basis of Cowan's representation that he would extrapolate Kilpatrick's valuations of the Nomura sample loans to a 95 percent confidence level. *FHFA* v. *JPMorgan Chase & Co., et al.*, 2012 WL 6000885, at \*5 (S.D.N.Y. Dec. 3, 2012). In performing his calculations, however, Cowan abandoned his stated confidence level and stepped far beyond his role as an extrapolator of Kilpatrick's valuations.

First, Cowan seeks to offer testimony that does not use the stated 95 percent confidence level—or indeed any confidence level—thereby producing results that are in no sense reliable. In particular, Cowan extrapolates and reports LTV ratios without regard to whether the calculations are statistically significant. Aside from its unreliability, that testimony is highly misleading and contravenes the express terms of the Court's December 3, 2012 Order.

Second, Cowan's testimony ignores Kilpatrick's opinions about what constitutes an "inflated" or "undervalued" appraisal, thus producing purported extrapolation results that are not actually based on Kilpatrick's valuations. Specifically, Cowan extrapolates the results of Kilpatrick's automated valuation model for all sample loans, not just for those loans that,

This motion pertains only to Cowan's extrapolation of Kilpatrick's appraisal accuracy results—not, for example, Cowan's extrapolation of Robert W. Hunter's underwriting results. *See* Ex. 1 (Cowan Extrapolation Report) at 2.

according to Kilpatrick, had appraised values that differed in a statistically significant way from his automated valuation model results. An extrapolation methodology that distorts the underlying data is unreliable. It also misleads the jury by masquerading as a purely procedural statistical analysis while in reality manipulating the substantive inputs.

For these reasons, Cowan's testimony that does not use the required 95 percent confidence level, and that ignores Kilpatrick's standard for an "inflated" or "undervalued" appraisal, should be excluded at trial.

#### **BACKGROUND**

The seven Certificates purchased by Freddie Mac and Fannie Mae that are at issue in this case were backed by more than 15,000 loans. Plaintiff sought and obtained this Court's permission to adopt a sampling approach to re-underwriting those loans. In October 2012, plaintiff submitted its proposed sampling methodology, designed by plaintiff's expert Charles Cowan. In his report, Cowan stated that he had selected "a statistically valid random sample of loans from the Supporting Loan Groups" backing the Certificates purchased by Freddie Mac and Fannie Mae. (Ex. 2 (Cowan Sampling Report) at 1.) According to Cowan, "[t]hese samples are representative of the populations and are unbiased." (Ex. 2 (Cowan Sampling Report) at 2.)

Plaintiff represented that Cowan's samples would be analyzed by its subject-matter experts (later disclosed as Robert W. Hunter and John A. Kilpatrick), who would purportedly determine whether the sample loans were consistent with statements contained in the Offering Documents regarding (i) compliance with underwriting guidelines, (ii) LTV ratios, and (iii) borrowers' intent to occupy the mortgaged properties. (Ex. 2 (Cowan Sampling Report) at 12, 18; Ex. 1 (Cowan Extrapolation Report) at 2.) Plaintiff told the Court that after the subject-matter experts had completed their analyses, Cowan would extrapolate their sample-level results

to the overall population of loans. According to Cowan, extrapolation is a purely procedural analysis that generalizes information about a sample to the general population. (Ex. 2 (Cowan Sampling Report) at 27.)

In plaintiff's proposal to the Court in 2012, Cowan opined that his sampling and extrapolation methodology would enable him to draw conclusions regarding the overall population at a 95 percent confidence level, "which is standard in statistics." (Ex. 2 (Cowan Sampling Report) at 2.) "The confidence level refers to the percentage of time that the actual value for the population will be within a specified range [the margin of error] around the sample value." (Ex. 2 (Cowan Sampling Report) at 12.) According to Cowan, his methodology "strikes the correct balance between cost and accuracy." (Ex. 2 (Cowan Sampling Report) at 20.)

In October 2012, defendants moved under *Daubert* to exclude testimony concerning Cowan's proposed sampling methodology on several grounds, including that plaintiff had failed to identify an extrapolation procedure. *FHFA*, 2012 WL 6000885, at \*11. In an order issued in December 2012, the Court denied that motion. In so doing, the Court relied on the notion that Cowan's framework would enable plaintiff to estimate population-level loan characteristics at a "95% confidence level." *Id.* at \*5. The Court also stated that "[t]he present motion is being decided without prejudice to defendants' right to challenge, on *Daubert* grounds, additional opinions that may be expressed by the plaintiff's expert." *Id.* at \*3.

Hunter and Kilpatrick thereafter analyzed the sample loans. Kilpatrick purported to ascertain, among other things, whether the original appraisals underlying the sample loans were "accurate" using the Greenfield AVM, a program he designed for use in this litigation.

(Ex. 3 (Kilpatrick Report) at 1-2.)<sup>2</sup> Kilpatrick's methodology for this inquiry included three steps. First, he used the Greenfield AVM to generate a new estimate (accompanied by a standard deviation measure) of the value for each sample property. Second, he identified properties "overvalued so significantly . . . that . . . the original appraisals were not accurate." (Ex. 3 (Kilpatrick Report) at 2.) In order to account for imprecision in the application of his model, Kilpatrick defined an original appraisal as "inflated" if the opinion of value rendered by the licensed appraiser was at least one standard deviation above the AVM estimate. (Ex. 3 (Kilpatrick Report) at 62 n.161.) Under this standard, Kilpatrick concluded that 208 of 672 sampled properties had inflated appraisals. (Ex. 3 (Kilpatrick Report) at 62 n.161.) Third, he recalculated LTV ratios for the sampled properties based on the lowest of the sales price of the property, the original appraised value or the value generated by the Greenfield AVM. (Ex. 3 (Kilpatrick Report) at 2, 68.)

Cowan purports to extrapolate Kilpatrick's results for the sample loans to the overall population, claiming that his approach achieves a confidence level of 95 percent. (Ex. 1 (Cowan Extrapolation Report) at 3.)<sup>3</sup> Cowan's extrapolation methodology (a "Monte Carlo simulation") allegedly accounts for two "sources of variability in the AVM Data: (i) the variability due to the use of a sample of loans from the population of loans in each deal" and "(ii) the variability in Dr. Kilpatrick's AVM estimates." (Ex. 1 (Cowan Extrapolation Report) at 10-11.) To purportedly account for the latter, Cowan simulates new appraisal values based on

Defendants have moved to exclude Kilpatrick's testimony in its entirety, including because Kilpatrick's Greenfield AVM does not satisfy *Daubert*'s standards for the admissibility of expert testimony. Motion to Exclude the Testimony of John Kilpatrick (Dec. 5, 2014). If that motion is granted, all of Cowan's testimony based on Kilpatrick's opinions should be excluded.

Cowan states that he accepts Kilpatrick's definition of what constitutes an "inflated" appraisal. (*E.g.*, Ex. 1 (Cowan Extrapolation Report) at 16.)

the Greenfield AVM point estimate and its measure of variability for each sampled property instead of using the AVM point estimate directly.

Cowan then uses the simulated appraisal values produced by the Monte Carlo procedure to (i) opine that defendants misstated the percentage of loans whose LTV ratios fell into various ranges, for example, between 80 and 85 percent, or above 100 percent (Ex. 1 (Cowan Extrapolation Report) at Table 8 & Chart 1), and (ii) calculate an "average inflation rate" for appraisals of the loans backing the Certificates (Ex. 1 (Cowan Extrapolation Report) at Table 6.)

Cowan's conclusions are flawed in two respects. First, his extrapolation of the ranges for "true" LTV ratios departs from his stated 95 percent confidence level—and in fact uses no confidence level at all. Second, all of Cowan's opinions disregard Kilpatrick's definition of what qualifies as an inflated appraisal. Those two flaws completely undermine Cowan's conclusions.

## A. Cowan's Failure to Use a 95 Percent Confidence Level to Extrapolate Ranges of Loan-to-Value Ratios

In order to ascertain the percentage of loans with an understated LTV ratio,

Cowan first uses Kilpatrick's Greenfield AVM values to create simulated appraisal values for the sample loans, and then recalculates the LTV ratio for each sample loan. (Ex. 1 (Cowan Extrapolation Report) at 14.) Cowan then compares these recalculated LTV ratios to the LTV ratios found on the loan tape for each Certificate. Cowan concludes that the loan tape LTV ratios were understated for 40 of the 672 loans (about 5.9 percent) included in his sample. (Ex. 1 (Cowan Extrapolation Report) at 14.) These are the only loans that Cowan is able to conclude—at a 95 percent confidence level—have understated LTV ratios. No other loans satisfy the stated confidence level. For the remaining 632 loans, Cowan reports that there is "no detectible"

difference" between the recalculated LTV ratio and the loan tape LTV ratio—so that the latter is not "understated." (See Ex. 4 (Cowan Deposition) at 252:20-253:4 ("Q.: So if the original loan tape LTV falls within the confidence interval around the recalculated LTV, you would conclude there's no difference between them? A.: I would conclude that there's no detectible difference . . . .").) Cowan's Table 7, which sets forth these results, appears below.

Table 7: Percent of Loans where the Loan Tape LTV Ratio Is Less than the 95% Lower Bound of the Simulated LTV Ratio

	Percent of Understated Loan
Securitization (SLG)	Tape LTV Ratios
NAA 2005-AR6 Group 3	5.4%
NHELI 2006-FM1 Group 1	3.2%
NHELI 2006-FM2 Group 1	7.4%
NHELI 2006-HE3 Group 1	10.2%
NHELI 2007-1 Group 2-1	2.2%
NHELI 2007-2 Group 1	8.0%
NHELI 2007-3 Group 1	5.8%
Aggregate	6.0%

For purposes of subsequent analysis, however, Cowan abandons his 95 percent confidence level by substituting recalculated LTV ratios for all loans—not just the 40 loans that satisfy his 95 percent confidence level, *i.e.*, those with recalculated LTV ratios that are "detectibl[y]" different from the reported LTV ratios. Cowan's Table 8 and Chart 1 (which reproduces Table 8 in graphical form) illustrate this error. Table 8 contrasts loan tape LTV ratios with Cowan's recalculated LTV ratios. (Ex. 1 (Cowan Extrapolation Report) at 15.) The results are broken down by ranges, reflecting the percentage of loans with LTV ratios greater than 100, between 95 and 100, between 90 and 95, etc. The resulting chart is apparently intended to suggest serious and pervasive misstatements by defendants. For example, zero percent of the

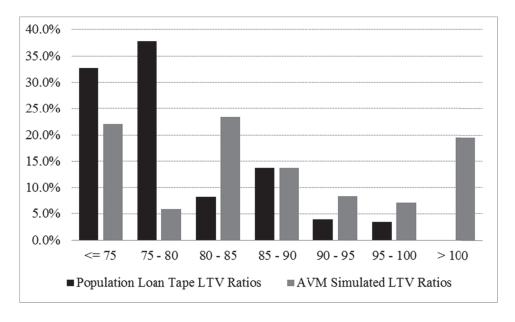
<sup>4 (</sup>See Ex. 5 (Cowan Backup) at Loan Level.)

loan tapes report a LTV ratio higher than 100 percent, whereas Cowan's simulated LTV ratios (contained in the fourth column) purport to show that 19.5 percent of loans underlying the Certificates fell within this category. (Ex. 1 (Cowan Extrapolation Report) at 15.)

Table 8: Comparison of the Distribution of Loans Based on LTV Ranges

LTV Ranges	Population Loan Tape LTV Ratios	AVM Sample Loan Tape LTV Ratios	AVM Simulated LTV Ratios
Less than 75	32.7%	33.8%	22.0%
Between 75 and 80	37.8%	44.8%	6.0%
Between 80 and 85	8.3%	6.0%	23.4%
Between 85 and 90	13.7%	9.2%	13.7%
Between 90 and 95	4.0%	2.5%	8.3%
Between 95 and 100	3.5%	3.7%	7.1%
Greater than 100	0.0%	0.0%	19.5%

Chart 1: Comparison of the Distribution of Loans Based on LTV Ranges



For the calculations behind Table 8 and Chart 1, Cowan employs simulated values for every loan in the sample—including loans that, by his own admission, did not have understated LTV ratios. (Ex. 1 (Cowan Extrapolation Report) at 15 (describing the results in the rightmost column as "AVM Simulated LTV Ratios"); Ex. 5 (Cowan Backup) at LTV

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Tabulations (Count).) Consistent with his 95 percent confidence level, Cowan should instead have used the LTV ratios on the loan tapes for all loans other than the 40 loans he identified as having recalculated LTV ratios that were statistically significantly different from the actual LTV ratios. In other words, in situations where the loan tape LTV ratio was not "understated," Cowan should have employed that loan tape LTV ratio for purposes of calculating the distribution percentages in column four. By using simulated LTV ratios for all of the sample loans, he produces results that have no statistical significance whatsoever.

The cumulative effect of employing simulated LTV ratios for all sample loans, regardless of confidence level, is significant. Small differences in reported and simulated LTV ratios—differences so small that Cowan testified "there's no detectible difference" (Ex. 4 (Cowan Deposition) at 252:25-253:4)—can cause a LTV ratio to move from one percentage range to another, making it appear that the Offering Documents were inaccurate. A recalculation of Cowan's Table 8 using simulated LTV ratios for only those 40 loans where Cowan's 95 percent confidence level is satisfied produces drastically different results. For example, only 5.5 percent—rather than 19.5 percent—of loans have LTV ratios greater than 100 percent. The table below contrasts these statistically significant results ("Cowan at 95% Confidence Level") with Cowan's original numbers ("Cowan Reported").<sup>5</sup>

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<sup>&</sup>lt;sup>5</sup> Declaration of Arnold Barnett in Support of Defendants' Motion to Exclude Certain Testimony of Charles D. Cowan, ¶ 3, January 8, 2015.

Recalculated LTV Ranges Using Cowan's 95% Confidence Level

			AVM Simulated LTV Ratios		
LTV Ranges	Population Loan Tape LTV Ratios	AVM Sample Loan Tape LTV Ratios	Cowan Reported [A]	Cowan at 95% Confidence Level [B]	Difference [A]-[B]
Less than 75	32.7%	33.8%	22.0%	32.3%	-10.3%
Between 75 and 80	37.8%	44.8%	6.0%	42.7%	-36.8%
Between 80 and 85	8.3%	6.0%	23.4%	5.5%	17.9%
Between 85 and 90	13.7%	9.2%	13.7%	8.8%	4.9%
Between 90 and 95	4.0%	2.5%	8.3%	2.1%	6.3%
Between 95 and 100	3.5%	3.7%	7.1%	3.1%	4.0%
Greater than 100	0.0%	0.0%	19.5%	5.5%	14.0%

When a 95 percent confidence level is used, there is a very small difference between the loan tape LTV ratios and the extrapolated LTV ratios. Cowan generates differences that appear greater only by ignoring the standard of statistical significance that he promised to use and that was required by the Court.

## B. Cowan's Failure to Use Kilpatrick's Definition of an "Inflated" or "Undervalued" Appraisal

Cowan also errs by disregarding Kilpatrick's definition of what qualifies as an "inflated" or "undervalued" appraisal. As noted previously, in order to account for imprecision in his automated valuation model, Kilpatrick restricts his "inflated" appraisal classification to those appraisals with property values that fall more than one standard deviation above the corresponding Greenfield AVM value. (Ex. 3 (Kilpatrick Report) at 62 n.161.) Kilpatrick likewise counts appraisals as "undervalued" if they have a property value that is more than one standard deviation below the corresponding Greenfield AVM value. (Ex. 3 (Kilpatrick Report)

at 64.) Cowan says that he accepts Kilpatrick's definitions at face value,<sup>6</sup> but then proceeds in an entirely contrary manner. In performing his calculations, Cowan uses simulated appraisal values exclusively—even when the original appraisals fall within one standard deviation of the corresponding Greenfield AVM value and thus fail to qualify as inflated or undervalued under Kilpatrick's analysis. (*See* Ex. 4 (Cowan Deposition) at 230:20-231:3 ("Q.: . . . The results in Table 6 reflect the GAVM findings for all 672 loans, not just those loans Dr. Kilpatrick considered to have an inflated original appraisal value, is that correct? A.: Yes.").)

Cowan's actual calculation of average inflation rates for the appraisals in each Securitization is shown in Table 6, below. (Ex. 1 (Cowan Extrapolation Report) at 14.) Had Cowan been faithful to Kilpatrick's results, he would have used an inflation rate of zero whenever the original appraisals were within one standard deviation of the Greenfield AVM's results. Cowan should have used simulated appraisal values to calculate appraisal inflation only when the corresponding loan tape values fell at least one standard deviation above (or below) the property value computed by Kilpatrick's automated valuation model.

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<sup>(</sup>See, e.g., Ex. 1 (Cowan Extrapolation Report) at 16 n.20 ("Kilpatrick considered a loan to have an inflated Original Appraisal if its value was more than one standard deviation above his predicted AVM."); Ex. 4 (Cowan Deposition) at 217:6-11 ("Q.: And did you adopt Dr. Kilpatrick's definition of inflated appraisals for purposes of performing your extrapolation? A.: Well, yes.") (form objection omitted); Ex. 4 (Cowan Deposition) at 217:12-16 ("Q.: . . . [Y]ou haven't conducted an independent analysis of appraisals in these cases, right? A.: No.").)

**Table 6: Average AVM Inflation Rate** 

Securitization (SLG)	Average AVM Inflation Rate	95% Lower Bound AVM Inflation Rate	95% Upper Bound AVM Inflation Rate
NAA 2005-AR6 Group 3	6.0%	2.0%	10.0%
NHELI 2006-FM1 Group 1	6.6%	1.6%	11.7%
NHELI 2006-FM2 Group 1	14.9%	8.4%	21.3%
NHELI 2006-HE3 Group 1	12.0%	6.1%	17.8%
NHELI 2007-1 Group 2-1	5.1%	0.7%	9.4%
NHELI 2007-2 Group 1	12.6%	7.0%	18.3%
NHELI 2007-3 Group 1	7.8%	2.5%	13.1%
Aggregate	11.1%	8.5%	13.7%

Cowan acknowledged that if he had followed that methodology—*i.e.*, if he had used Kilpatrick's Greenfield AVM results only for the appraisals Kilpatrick actually found to be inflated—his results would have been quite different. (Ex. 4 (Cowan Deposition) at 231:18-23.)<sup>7</sup> In fact, the use of simulated values across the board to estimate "average inflation" creates overstated appraisal inflation rates for every single Securitization. The table below compares Cowan's original inflation rates (column [A]) with recalculated rates that incorporate Kilpatrick's definition of inflated and undervalued appraisals (column [B]).<sup>8</sup>

Cowan speculated that the results "would be much worse in terms of the inflation that's reported" if he had used the Greenfield AVM values only for appraisals Kilpatrick considered inflated, but he admitted that he had never actually performed that calculation. (Ex. 4 (Cowan Deposition) at 231:24-232:2, 234:2-5.)

Declaration of Arnold Barnett in Support of Defendants' Motion to Exclude Certain Testimony of Charles D. Cowan, ¶ 5, January 8, 2015.

Recalculated "Average Inflation Rates" Using Dr. Cowan's Methodology and Dr. Kilpatrick's Definition

Securitization	Cowan Reported [A]	Cowan Corrected [B]
NAA 2005-AR6	6.0%	5.6%
NHELI 2006-FM1	6.6%	5.0%
NHELI 2006-FM2	14.9%	13.9%
NHELI 2006-HE3	12.0%	10.9%
NHELI 2007-1	5.1%	3.4%
NHELI 2007-2	12.6%	11.7%
NHELI 2007-3	7.8%	6.0%
Aggregate	11.1%	9.9%

This error infects Cowan's extrapolation of LTV ratios as well. (Ex. 1 (Cowan Extrapolation Report) at 14-15.) In determining the "value" segment of the loan-to-value ratio, Cowan should have used the original appraisal values for all loans that did not qualify as inflated or undervalued under Kilpatrick's definition. Instead, he employs simulated appraisal values universally. (*See* Ex. 4 (Cowan Deposition) at 231:4-11 ("Q.: And your results in Table 8 reflect the GAVM findings for all 672 loans, not just those Dr. Kilpatrick considered to have an inflated original appraisal value, is that right? . . . A.: That's correct."); Ex. 4 (Cowan Deposition) at 231:12-17 (same for Chart 1).) This approach results in significantly overstated LTV ratios.

#### **ARGUMENT**

#### I. LEGAL STANDARD

Federal Rule of Evidence 702 "assign[s] to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand."

Daubert, 509 U.S. at 597. "[W]hen an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony." *Ruggiero* v. *Warner-Lambert Co.*, 424 F.3d 249, 255 (2d Cir. 2005) (internal quotation marks omitted). The party seeking to introduce the testimony bears the burden of satisfying Rule 702's requirements by a preponderance of the evidence. *SEC* v. *Tourre*, 950 F. Supp. 2d 666, 674 (S.D.N.Y. 2013).

In performing the *Daubert* inquiry, a court "should consider the indicia of reliability identified in Rule 702, namely, (1) that the testimony is grounded on sufficient facts or data; (2) that the testimony is the product of reliable principles and methods; and (3) that the witness has applied the principles and methods reliably to the facts of the case." *United States* v. *Williams*, 506 F.3d 151, 160 (2d Cir. 2007) (quoting *Amorgianos* v. *Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002) (internal quotation marks omitted)). Expert testimony should be excluded when it is "speculative," "conjectural," or "contradictory." *Zerega Ave. Realty Corp.* v. *Hornbeck Offshore Transp., LLC*, 571 F.3d 206, 213-14 (2d Cir. 2009) (internal quotation marks omitted).

Expert evidence is also subject to Rule 403, which permits a court to "exclude relevant evidence if its probative value is substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, [or] misleading the jury." FED. R. EVID. 403; *see also Tourre*, 950 F. Supp. 2d at 675. As the Supreme Court observed in *Daubert*, "[e]xpert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 of the present rules exercises more control over experts than over lay witnesses." 509 U.S. at 595 (internal quotation marks omitted). Thus, "[t]he Rule 403 inquiry is particularly important in the

context of expert testimony, 'given the unique weight such evidence may have in a jury's deliberations." *523 IP LLC* v. *CureMD.Com*, 2014 WL 4746140, at \*37 (S.D.N.Y. Sept. 24, 2014) (quoting *Nimely* v. *City of New York*, 414 F.3d 381, 397 (2d Cir. 2005)).

### II. COWAN'S TESTIMONY THAT IS NOT BASED ON ANY STANDARD OF STATISTICAL SIGNIFICANCE SHOULD BE EXCLUDED.

Cowan's testimony that does not reflect any confidence level, much less the 95 percent confidence level approved by this Court, should be excluded.

## A. Plaintiff Is Estopped from Presenting Extrapolations That Do Not Incorporate the Confidence Level It Proposed and the Court Approved.

Cowan's testimony runs directly contrary to the representations made by plaintiff in order to secure the Court's approval of its proposed sampling methodology. (*See, e.g.*, Ex. 2 (Cowan Sampling Report) at 19 ("This sample yields an estimate with a 95 percent confidence level . . . .").) This Court expressly relied on those representations in accepting Cowan's proposed methodology over defendants' objections. *FHFA*, 2012 WL 6000885, at \*5 ("According to the Report, these samples will enable FHFA to make estimates regarding the underlying populations with a 95% confidence level . . . ."). As a result, plaintiff is judicially estopped from seeking to use a different, and much lower, confidence level for its sampling and extrapolation. *Pegram* v. *Herdrich*, 530 U.S. 211, 228 n.8 (2000) (holding that judicial estoppel "prevents a party from prevailing in one phase of a case on an argument and then relying on a contradictory argument to prevail in another phase").

Plaintiff proposed a sampling methodology with certain material characteristics (including a 95 percent confidence level) and obtained the Court's approval to use the methodology as proposed. Subsequent discovery and expert analysis have taken place in light of the Court's approval of a 95 percent confidence level. Plaintiff cannot change course at this late

stage in order to present to the jury results that appear more favorable to plaintiff but have no statistical significance.

## B. Cowan's Extrapolations Without Regard to Any Standard of Statistical Significance Are Unreliable Under *Daubert*.

Cowan's approach violates not only this Court's prior ruling, but is also contrary to well-settled statistical norms. In determining whether an expert's testimony is sufficiently reliable under *Daubert*, "a court should consider whether the expert fails to employ the level of intellectual rigor that characterizes the practice of an expert in the relevant field." *In re Fed. Home Loan Mortg. Corp. Secs. Litig.*, 281 F.R.D. 174, 181 (S.D.N.Y. 2012). Here, as plaintiff repeatedly argued, a 95 percent confidence level "is standard in statistics." (Ex. 2 (Cowan Sampling Report) at 2; *see also* Ex. 2 (Cowan Sampling Report) at 20 (quoting Shari Seidman Diamond, *Reference Guide on Survey Research*, in Reference Manual on Scientific Evidence 244 (Fed. Judicial Ctr. 2d ed. 2000) ("Traditionally, scientists adopt the 95% level of confidence . . . . ")); Ex. 6 (Plaintiff's Proposal) at 2 ("The 95% confidence interval has been generally accepted by courts and those in the scientific community."); Ex. 6 (Plaintiff's Proposal) at 7 ("The proposed confidence interval of 95 percent is customary in statistics.") (citing Kevin D. Hoover & Mark V. Siegler, *Sound and Fury: McCloskey and Significance Testing in Economics*, 15 J. Econ. Methodology 1, at 13-14, 24 (March 2008)).)

Courts in this district have also insisted on the use of a 95 percent confidence level. For example, in *In re American International Group, Inc. Securities Litigation*, 265 F.R.D. 167, 187 (S.D.N.Y. 2010), *vacated on other grounds*, 689 F.3d 229 (2d Cir. 2012), the court concluded that it is not "consistent with standard methodology in financial economics . . . to draw conclusions at" a 90 percent confidence level. *See also In re Moody's Corp. Secs. Litig.*, 274 F.R.D. 480, 493 n.11 (S.D.N.Y. 2011) (holding that 90 percent "is below the

conventional statistical measure of a 95% confidence level and therefore is not sufficient evidence of a link between the corrective disclosure and the price"). Here, by using simulated LTV ratios for all loans, Cowan did not merely adopt a confidence level lower than is commonly required—he dispensed with a confidence level altogether. His results thus fail to satisfy *Daubert*'s reliability requirement.

## C. Cowan's Extrapolations Without Regard to Any Standard of Statistical Significance Should Be Excluded Under Rule 403.

The portions of Cowan's testimony that do not adhere to a 95 percent confidence level should also be excluded under Rule 403. Permitting Cowan to assert a 95 percent confidence level when his actual calculations fail to satisfy that standard would pose a serious risk of misleading the jury, which is likely to be impressed by his supposedly high accuracy rate. It will be essentially impossible for lay jurors to keep track of Cowan's subtle departures from his stated confidence levels. *Cf. Tourre*, 950 F. Supp. 2d at 684 ("It would be confusing and unduly prejudicial for Tourre to present extensive evidence on the presence and involvement of lawyers . . . while at the same time professing not to have relied on their advice in preparing or disseminating those disclosures."). Given the subtle—yet pervasive—nature of Cowan's deviations from the 95 percent confidence level, cross-examination would be inadequate to remedy the harm done by his misleading representations.

Cowan's use of simulated LTV ratios without regard to their lack of statistical significance produces a considerable shift in the percentage of loans falling into each LTV ratio category in Table 8 and Chart 1. This sleight of hand results in a distorted portrayal of the accuracy of the Offering Documents. Exposing the jury to these misleading figures, while simultaneously permitting Cowan to assert that his results have a 95 percent confidence level, would result in serious prejudice to defendants. *See Daubert*, 509 U.S. at 595 ("Expert evidence

can be both powerful and quite misleading because of the difficulty in evaluating it.") (internal quotation marks omitted). Cowan's testimony in this regard should therefore be excluded under Rule 403.

### III. COWAN'S TESTIMONY THAT IGNORES KILPATRICK'S DEFINITION OF AN "INFLATED" APPRAISAL SHOULD BE EXCLUDED.

Cowan performs a second "magic trick" in his use of Kilpatrick's appraisal accuracy data. Contrary to his function as a sampling expert, Cowan distorts the underlying data by ignoring Kilpatrick's conclusions about which appraisals qualify as inflated or undervalued. Cowan's extrapolation methodology was supposed to be a purely procedural tool that did nothing more than generalize Kilpatrick's analysis of the sample loans to the entire population of loans underlying the Securitizations. Cowan is therefore bound to accept Kilpatrick's results. An extrapolation methodology that fails to respect the underlying data is, by definition, invalid. (*See, e.g.*, Ex. 2 (Cowan Sampling Report) at 27 ("Extrapolation refers to the concept of using the results from the sample to estimate the values or differences in the population.").)

Cowan's failure to apply Kilpatrick's AVM results faithfully is also an internal inconsistency in Cowan's overall analysis. Courts have repeatedly excluded expert testimony on this ground. *See, e.g., Hunt* v. *CNH Am. LLC*, 511 Fed. App'x 43, \*3 (2d Cir. 2013) (upholding the exclusion of expert testimony that the district court concluded was "internally inconsistent"); *In re Fed. Home Loan*, 281 F.R.D. at 181 (finding an expert's testimony "unreliable and unpersuasive" because it was "so internally inconsistent"). In short, Cowan's "apples and oranges' comparison simply cannot withstand scrutiny." *See Shatkin* v. *McDonnell Douglas Corp.*, 727 F.2d 202, 208 (2d Cir. 1984).

Cowan's "appraisal inflation" testimony also merits exclusion pursuant to Rule 403 because it is both misleading and prejudicial. Cowan purports to conduct a purely

procedural data extrapolation while silently revising the sample results being extrapolated in order to produce more favorable numbers for plaintiff. His disregard of Kilpatrick's appraisal accuracy data is merely a "gimmick to inflate the error rate," *United States v. Herrera*, 788 F. Supp. 2d 1026, 1034 (N.D. Cal. 2011), that both distorts the underlying data and results in systematically overstated rates of appraisal inflation. As with his selective use of the 95 percent confidence level, Cowan's manipulation of inputs in this instance is subtle and highly technical. Cowan intends to tell the jury that he is merely extrapolating Kilpatrick's results, and he should be limited to that function. As it stands, however, "[t]he disconnects between Dr. [Cowan's] proposed opinions and the bases from which they were purportedly derived are so severe that [his] testimony would only confuse and mislead the jury," *see id.* at 1029, to the substantial prejudice of defendants.

#### **CONCLUSION**

Cowan's testimony that does not rely on any level of statistical significance, and that ignores Kilpatrick's standard for appraisal inflation and undervaluation, should be excluded as unreliable, misleading, and unduly prejudicial.

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Respectfully submitted,

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